



## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of

Zhu, Yudong

Serial No.

10/723,311

Filing Date

11/26/2003

Title

METHOD AND APPARATUS TO REDUCE RF

POWER DEPOSITION DURING MR DATA

**ACQUISITION** 

Group Art No.

Unknown

**Examining Attorney** 

Unknown

## CERTIFICATION UNDER 37 CFR 1.8(a) and 1.10

I hereby certify that, on the date shown below, this correspondence is being:

deposited with the United States Postal Service in an envelope addressed to the Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450

37 CFR 1.8(a)

37 CFR 1.10

with sufficient postage as first class mail

☐ As "Express Mail Post Office to Addressee" Mailing Label No. \_

transmitted by facsimile to Fax No.:

addressed to Examiner at the Patent and Trademark Office.

Date:

Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

## INFORMATION DISCLOSURE STATEMENT UNDER 37 C.F.R. §1.97/99

Dear Sir:

In compliance with Applicant's duty of disclosure as set forth in 37 C.F.R. §1.56, listed on the attached equivalent to Form PTO-1449 are those patents, publications and other Inventor: Zhu, Yudong S/N: 10/723,311

information known to the Applicant(s) which may be considered material to the patentability of the claims of the above-captioned application. One copy of each reference is attached.

Applicant respectfully request that the documents listed on the attached equivalent to Form PTO-1449 be considered by the Examiner, that the references be made of record in the present application, and that an initialed copy of the duplicate equivalent to Form PTO-1449 be returned to the undersigned in accordance with MPEP 609.

Respectfully submitted,

Kent L. Baker

Registration No. 52,584 Telephone 262-376-5170 klb@zpspatents.com

Date: February 26, 2004

Atty. Docket No.: GEGR8082.002

## **P.O. ADDRESS:**

Ziolkowski Patent Solutions Group, LLC 14135 N. Cedarburg Rd. Mequon, WI 53097-1416 262-376-5170

Approved for use through 10/31/2002. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

2

Substitute for form 1449B/PTO FORMATION DISCLOSURE TATEMENT BY APPLICANT

(use as many sheets as necessary)

of

1

Sheet

Complete if Known				
Application Number	10/723,311			
Filing Date	11/26/2003			
First Named Inventor	Zhu, Yudong			
Group Art Unit	Unknown			
Examiner Name	Unknown			
Attorney Docket Number	GEGR8082.002			

OTHER PRIC	OR ART -	NON PATENT LITERATURE DOCUMENTS	
Examiner Initials*	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
		HAYES, C.E. et al., An efficient, highly homogneous radiofrequency coil for whole-body NMR imaging at 1.5T, Journal of Magnetic Resonance, 1985, vol. 63, pp. 622-628.	
		GLOVER, G.H. et al., Comparison of linear and cirular polarization for magnetic resonance imaging, Journal of Magnetic Resonance, 1985, vol. 64, pp. 255-270.	
		SILVER, M.S. et al., Selective spin inversion in nuclear magnetic resonance and coherent optics through an exact solution of the Bloch-Riccati equation, Physical Revison A, 1985, vol. 31, pp. 2753-2755.	
		CONOLLY, S. et al., A selective adiabatic spin-echo pulse, Journal of Magnetic Resonance, 1985, vol. 83, pp. 324-334.	
		FOO, T.K.F. et al., Reduction of RF penetration effects in high field imaging, Magnetic Resonance in Medicine, 1992, vol. 23, pp. 287-301.	
		VAUGHAN, J.T. et al., High frequency volume coils for clincial NMR imaging and spectroscopy, Magnetic Resonance in Medicine, 1994, vol. 32, pp. 206-218.	
		ALSOP, D.C. et al., A spiral volume coil for improved RF field homogeneity at high static magnetic field strength, Magnetic Resonance in Medicine, 1998, vol. 40, pp. 49-54.	
		DUENSING, G.R. et al., Transceive phased array desgined for imaging at 3.0T, Proceedings of the ISMRM 6 <sup>th</sup> Scientific Meeting, 1998, p. 441.	
		IBRAHIM, T.S. et al., Effect of RF coil excitation on field inhomogeneity at ultra high fields: a field optimized TEM resonator, Magnetic Resonance Imaging, 2001, vol. 19, pp. 1139-1347.	
		PAULY, J. et al., A linear class of large-tip-angle selective excitation pulses, Journal of Magnetic Resonance, 1989, vol. 82, pp. 571-587.	
_		CONOLLY, S. et al., A reduced power selective adiabatic spin-echo pulse sequence, Magnetic Resonance in Medicine, 1991, vol. 18 pp. 28-38.	

Examiner Date Signature Considered			
	Examiner	 Date	
	Signature	Considered	

<sup>\*</sup>EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>&</sup>lt;sup>1</sup>Unique citation designation number. <sup>2</sup>Applicant is to place a check mark here if English language Translation is attached.

Approved for use through 10/31/2002. OMB 0651-0031 U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

Substitute for form 1449B/PTO				Complete if Known	
				Application Number	10/723,311
INFORMATION DISCLOSURE				Filing Date	11/26/2003
STATEMENT BY APPLICANT			PLICANT	First Named Inventor	Zhu, Yudong
				Group Art Unit	Unknown
(use as many sheets as necessary)			essary)	Examiner Name	Unknown
Sheet	2	of	2	Attorney Docket Number	GEGR8082.002

		NON PATENT LITERATURE DOCUMENTS  Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the	T <sup>2</sup>
Examiner nitials*	Cite No.	item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T
		PRUESSMANN, K.P. et al., SENSE: sensitvity encoding for fast MRI, Magnetic Resonance in Medicine, 1999, vol. 42, pp. 952-962.	
		SODICKSON, D.K. et al., Simultaneous acquistion of spatial harmonics (SMASH): fast imaging with radiofrequency coil arrays, Magnetic Resonance in Medicine, 1997, vol. 38, pp. 591-603.	
		PAULY, J. et al., A k-space analysis of small-tip-angle excitation, Journal of Magnetic Resonance, 1989, vol. 81, pp. 43-56.	

Examiner	Date	
Signature	Considered	-

<sup>\*</sup>EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>&</sup>lt;sup>1</sup>Unique citation designation number. <sup>2</sup>Applicant is to place a check mark here if English language Translation is attached.